Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (Currently amended) An ~~Internal~~ internal combustion engine with at least one cylinder with a combustion chamber, in which a fuel/air mixture can be compressed ~~in the cylinder~~ by a piston, wherein ~~the~~ a temperature of the fuel/air mixture in the combustion chamber can be ~~brought~~ set to at least over 80% and up to at most 98% of ~~the~~ a spontaneous ignition temperature and with that to a temperature different from the spontaneous ignition temperature of the fuel/air mixture and ~~the~~ an ignition of the combustion is time-controlled through ~~the~~ an introduction of laser light into the combustion chamber.

Claim 2 (Currently amended) The ~~Internal~~ internal combustion engine according to claim 1, wherein the temperature of the fuel/air mixture in the combustion chamber can be ~~brought~~ set to at least over 85%, preferably over 87%, of the spontaneous ignition temperature of the fuel/~~ignition~~ air mixture.

Claim 3 (Currently amended) ~~A~~ The ~~Internal~~ internal combustion engine according to claim 1, wherein the temperature of the fuel/air mixture in the combustion chamber can

be ~~brought~~ set to at most 95%, preferably at most 93%, of the spontaneous ignition temperature of the fuel/air mixture.

Claim 4 (Currently amended) The ~~Internal~~ internal combustion engine according to claim 1, wherein the fuel/air mixture is formed outside the combustion chamber.

Claim 5 (Currently amended) The ~~Internal~~ internal combustion engine according to claim 1, wherein the fuel/air mixture is formed in the combustion chamber.

Claim 6 (Currently amended) The ~~Internal~~ internal combustion engine according to claim 1, wherein the fuel/air mixture is formed during the induction stroke.

Claim 7 (Currently amended) The ~~Internal~~ internal combustion engine according to claim 1, wherein the fuel/air mixture in the combustion chamber is at least in parts homogeneous.

Claim 8 (Currently amended) The ~~Internal~~ internal combustion engine according to claim 7, wherein ~~the~~ an air/fuel ratio in the whole combustion chamber is approximately constant.

Claim 9 (Currently amended) The ~~Internal~~ internal combustion engine according to claim 7, wherein ~~the~~ an air/fuel ratio is smaller in an area around the source of ignition than in the remainder of the combustion chamber.

Claim 10 (Currently amended) The ~~Internal~~ internal combustion engine according to claim 1, wherein ~~the~~ an air/fuel ratio is greater than 1.5.

Claim 11 (Currently amended) The ~~Internal~~ internal combustion engine according to claim 1, wherein ~~the~~ an air/fuel ratio is greater than 1.8.

Claim 12 (Currently amended) The ~~Internal~~ internal combustion engine according to claim 1, wherein ~~the~~ a geometric compression ratio is greater than 14.

Claim 13 (Currently amended) The ~~Internal~~ internal combustion engine according to claim 1, wherein ~~the~~ a geometric compression ratio is greater than 16.

Claim 14 (Currently amended) The ~~Internal~~ internal combustion engine according to claim 1, ~~wherein it has~~ further comprising at least one laser light source, at least one optical transmission apparatus and at least one coupling optic for ~~the~~ focusing of the laser light into the combustion chamber, onto at least one focus.

Claim 15 (Currently amended) The ~~Internal~~ internal combustion engine according to claim 1 further comprising a plurality of cylinders, wherein each cylinder has an antechamber-less main combustion chamber with in- and outlet valves and at least one focus of the laser light lies in the main combustion chamber.

Claim 16 (Currently amended) The ~~Internal~~ internal combustion engine according to claim 1, wherein ~~it is~~ the engine comprises a stationary engine.

Claim 17 (Currently amended) The ~~Internal~~ internal combustion engine according to claim 1, wherein ~~the~~ a laser light source has a solid-state laser.

Claim 18 (Currently amended) The ~~Internal~~ internal combustion engine according to claim ~~1~~ 17, wherein the solid-state laser is diode laser-pumped.

Claim 19 (Currently amended) The ~~Internal~~ internal combustion engine according to claim ~~1~~ 17, wherein the solid-state laser is selected from ~~at least one of~~ the group consisting of a Yb laser, a Nd laser and a Nd/YAG laser.

Claim 20 (Currently amended) The ~~Internal~~ internal combustion engine according to claim 1, wherein ~~the~~ a laser light source comprises at least one laser diode the light of which enters the combustion chamber via ~~a~~ an optical conductor and a coupling optic.

Claim 21 (Currently amended) The ~~Internal~~ internal combustion engine according to claim 20, wherein the optical conductor is flexible.

Claim 22 (Currently amended) The ~~Internal~~ internal combustion engine according to claim 1, wherein ~~the~~ a laser light source ~~comprises one of a~~ is selected from the group consisting of an actively and a passively Q switched laser.

Claim 23 (Currently amended) The ~~Internal~~ internal combustion engine according to claim 1, wherein ~~the~~ a wavelength of the laser light lies above 400 nm.

Claim 24 (Currently amended) The ~~Internal~~ internal combustion engine according to claim 1, wherein ~~the~~ a wavelength of the laser light lies above 1000 nm.

Claim 25 (Currently amended) The ~~Internal~~ internal combustion engine according to claim 1, wherein the laser light produces a laser light pulse wherein ~~the~~ a pulse duration of ~~a~~ the laser light pulse lies between 1ns and 100ns.

Claim 26 (Currently amended) The ~~Internal~~ internal combustion engine according to claim 1, wherein the laser light produces a laser light pulse wherein a pulse duration of ~~a~~ the laser light pulse lies between 5ns and 50 ns.

Claim 27 (Canceled).

Claim 28 (Canceled).

Claim 29 (Currently amended) The ~~Internal~~ internal combustion engine according to claim 1, further comprising ~~wherein the~~ a coupling optic ~~has~~ having a combustion chamber window and outside the combustion chamber a lens or a lens arrangement for ~~the~~ focusing ~~of~~ the laser light through the combustion chamber window ~~onto~~ into the combustion chamber.

Claim 30 (Currently amended) The ~~Internal~~ internal combustion engine according to claim 29, wherein the ~~coupling optic has a~~ combustion chamber window of the coupling optic is made of sapphire.

Claim 31 (Currently amended) The ~~Internal~~ internal combustion engine according to claim ~~1~~ 29, wherein the combustion chamber window of the coupling optic ~~is itself developed as~~ comprises a lens.

Claim 32 (Currently amended) The ~~Internal~~ internal combustion engine according to claim 1, ~~wherein one of the group consisting of~~ further comprising an electronic engine-control ~~and~~ or an engine-regulating device is provided which, according to recorded engine parameters, triggers the laser light source(s) and in so doing establishes laser light parameters.

Claim 33 (Currently amended) The ~~Internal~~ internal combustion engine according to claim 32, wherein the recorded engine parameters are at least one selected from the ~~of~~ the group consisting of ~~the~~ a crankshaft angle, ~~and the~~ a speed, ~~and the~~ an engine poser and ~~the~~ a current cylinder pressure in the combustion chamber.

Claim 34 (Currently amended) The ~~Internal~~ internal combustion engine according to claim 32, wherein the laser light parameters are at least one selected from ~~of~~ the group consisting of ~~the~~ a chronological sequence, ~~and the~~ a pulse duration and ~~the~~ an ignition energy.

Claim 35 (Canceled).

Claim 36 (Canceled).

Claim 37 (Currently amended) The ~~Internal~~ internal combustion engine according to claim 1, ~~wherein one of the group consisting of~~ further comprising an electronic engine-control ~~and~~ or an engine-regulating device ~~is provided~~ which at the start of a working cycle establishes the air/fuel ratio, according to recorded engine parameters of ~~at the~~ a directly preceding working cycle.

Claim 38 (Currently amended) The ~~Internal~~ internal combustion engine according to claim 37, wherein the recorded engine parameters are ~~the~~ cylinder pressures.

Claim 39 (Currently amended) The ~~Internal~~ internal combustion engine according to claim 1, wherein ~~the~~ a geometric compression ratio can be varied.

Claim 40 (Currently amended) The ~~Internal~~ internal combustion engine according to claim ~~1~~ 39 further comprising an alternating piston, wherein the geometric compression ratio can be varied by ~~an~~ the alternating piston.

Claim 41 (Currently amended) The ~~Internal~~ internal combustion engine according to claim ~~1~~ 39 further comprising a crankshaft, wherein the geometric compression ratio can be varied by swiveling the crankshaft.

Claim 42 (Currently amended) The ~~Internal~~ internal combustion engine according to claim ~~1~~ 39 further comprising a piston pin, wherein the geometric compression ratio can be varied by a changing ~~of the~~ a distance between ~~the~~ a middle of the piston pin and ~~the~~ an upper edge of the piston.

Claim 43 (Currently amended) The ~~Internal~~ internal combustion engine according to claim ~~1~~ 39 further comprising a piston pin, wherein the geometric compression ratio can be varied by a pressure-dependent changing of ~~the~~ a distance between ~~the~~ a middle of the piston pin and ~~the~~ an upper edge of the piston.

Claim 44 (Currently amended) The ~~Internal~~ internal combustion engine according to claim 1, wherein, after a pre-determined number of working cycles, a laser light pulse is emitted into the combustion chamber which is not filled with the fuel/air mixture.

Claim 45 (Currently amended) The ~~Internal~~ internal combustion engine according to claim 1, wherein during ~~the~~ a starting process of the internal combustion engine, a laser light is emitted into the combustion chamber which is not filled with the fuel/air mixture.